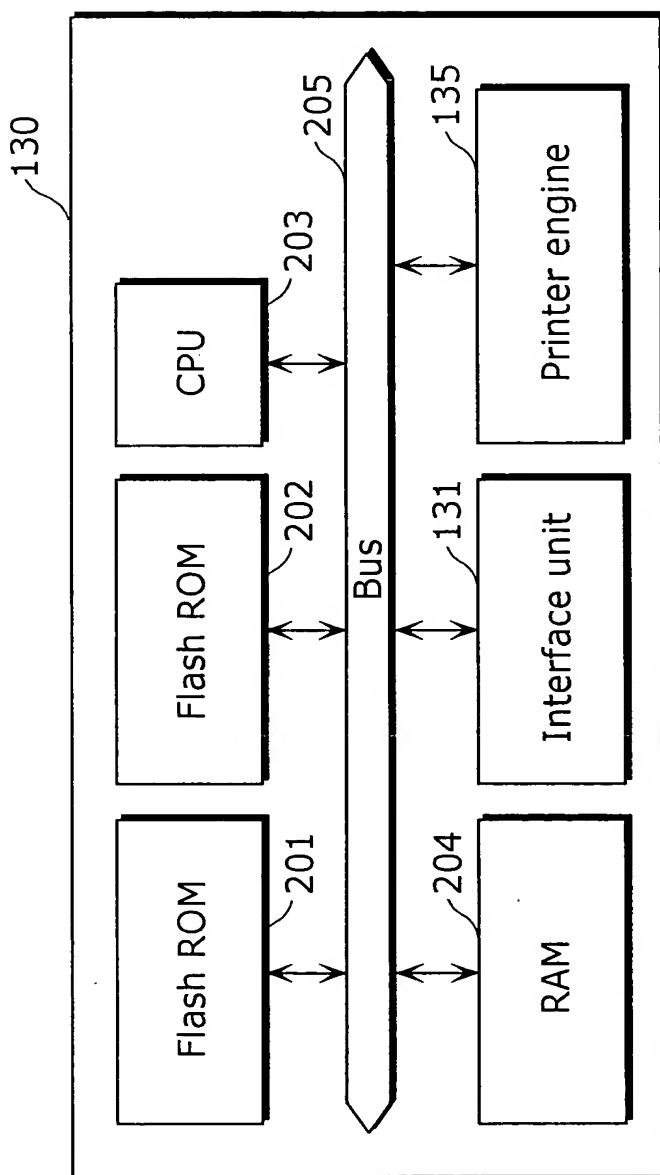
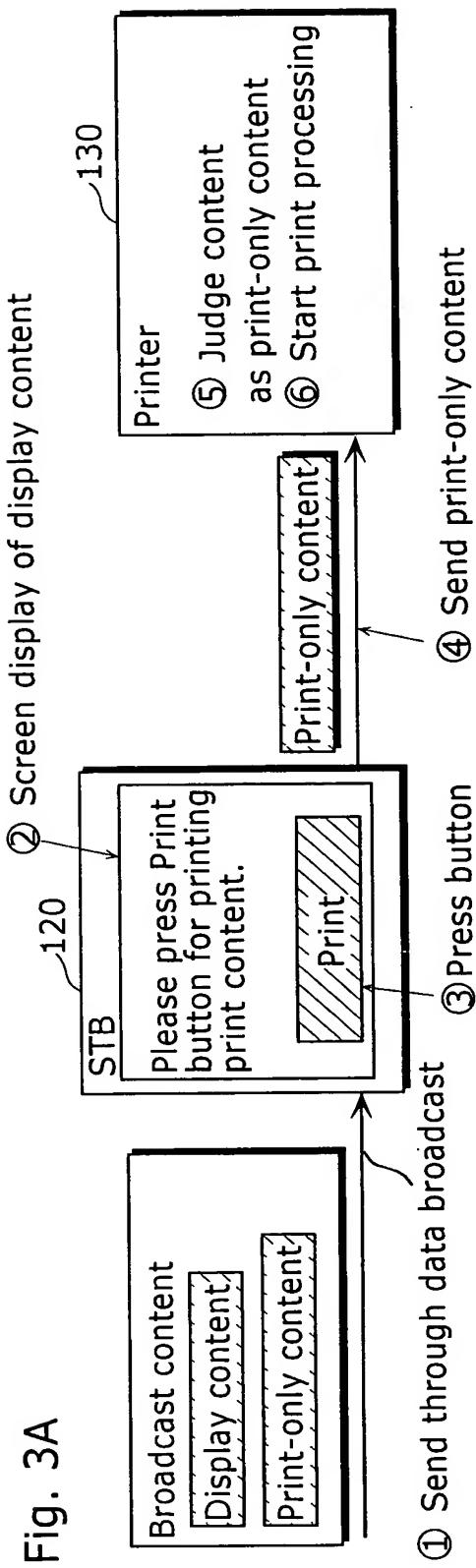


Fig. 2



**Fig. 3A**



**Fig. 3B**

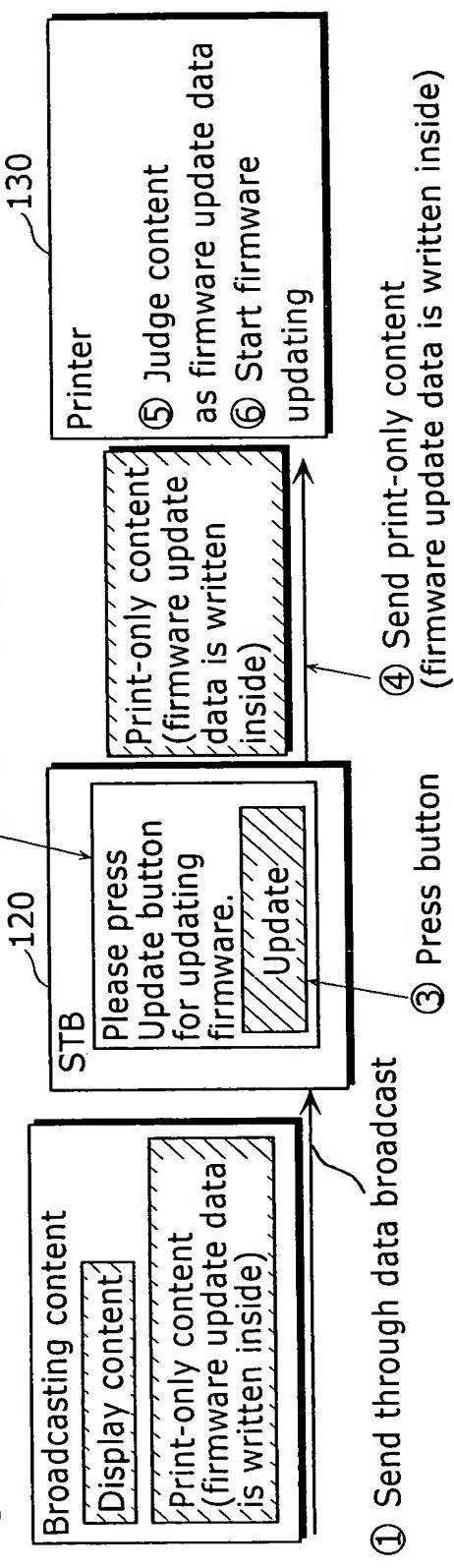


Fig. 4A

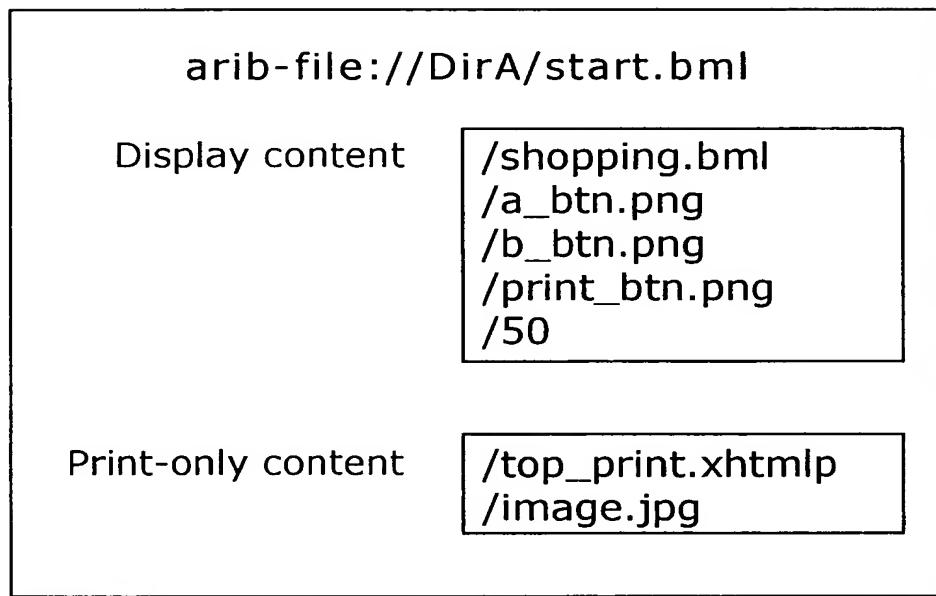
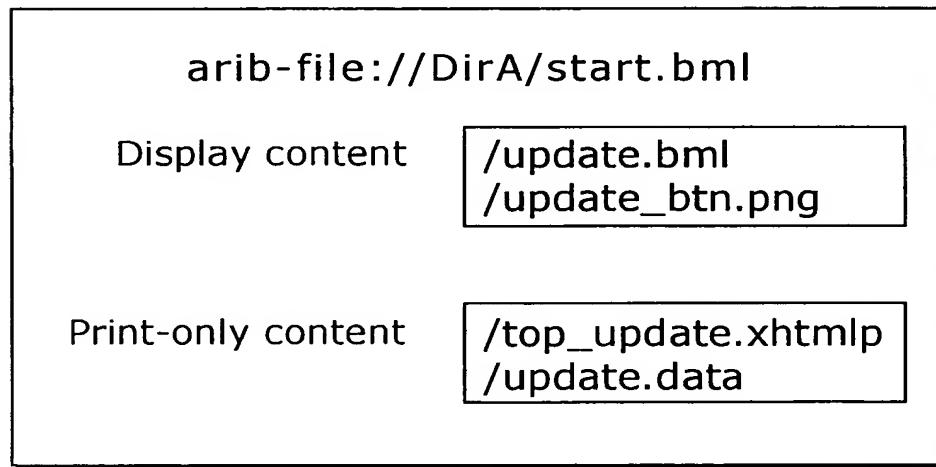


Fig. 4B



```

<?xml version="1.0" encoding="Shift_JIS"?>
<!DOCTYPE bml PUBLIC "-//ARIB STD-B24:1999//DTD BML
Document//JA" "bml_1_0.dtd">
<?bml version="1.0" ?>
<bml>
  <head>
    <title>shopping</title>
  <script>
<![CDATA[
    function keydown() {
      browser.print("./top_print.xhtml");
    }
  ]]>
  </script>
</head>
<body>
  <object id="video" type="video/X-arib-mpeg2" data="/50"
style="left:528px; top:40px; width:360px; height:202px" />
  <object type="image/X-arib-png" id="A" data="a_btn.png"
style="left:68px; top:150px; width:176px; height:48px;" />
  <object type="image/X-arib-png" id="B" data="b_btn.png"
style="left:68px; top:300px; width:176px; height:48px;" />
  <object type="image/X-arib-png" id="print" data="print_btn.png"
style="left:80px; top:456px; width:720px; height:48px;" />
  onkeydown="keydown();"/>
</body>
</bml>

```

Fig. 5B

Display "Shopping.bml"

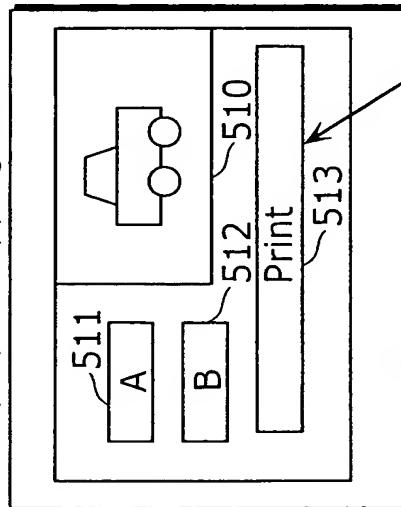


Fig. 5A

```
<?xml version="1.0"?>
<!DOCTYPE html PUBLIC "-//PWG//DTD XHTML-Print 1.0//EN"
"http://www.pwg.org/xhtml-print/xhtml-print10.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title> TV Shopping </title>
</head>
<body>
<p>
TV shopping through data broadcast
:
(Omission)
:
End of printing
</p>
<? image_>
<object type="image/jpeg" data="image.jpeg"
style="left:528px; top:40px; width:360px; height:202px"/>
</body>
</html>
```

Fig. 6

Fig. 7B

```

<?xml version="1.0" encoding="Shift_JIS" ?>
<!DOCTYPE bml PUBLIC "-//ARIB STD-B24:1999//DTD BML
Document/JA" "bml_1_0.dtd">
<?bml bml-version="1.0" ?>
<bml>
<head>
<title>update</title>
<script>
<![CDATA[
function keydown() {
  browser.print("./top_update.xhtmllp");
}
]]>
</script>
</head>
<body>
<p>
For updating on-line
firmware of printer,
please press "Firmware
update" button. 711
<span style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 20px;">Firmware update
<span style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 20px;">keydown="keydown();"

```

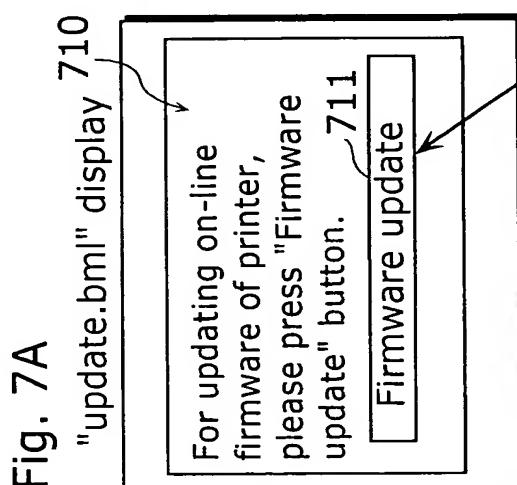
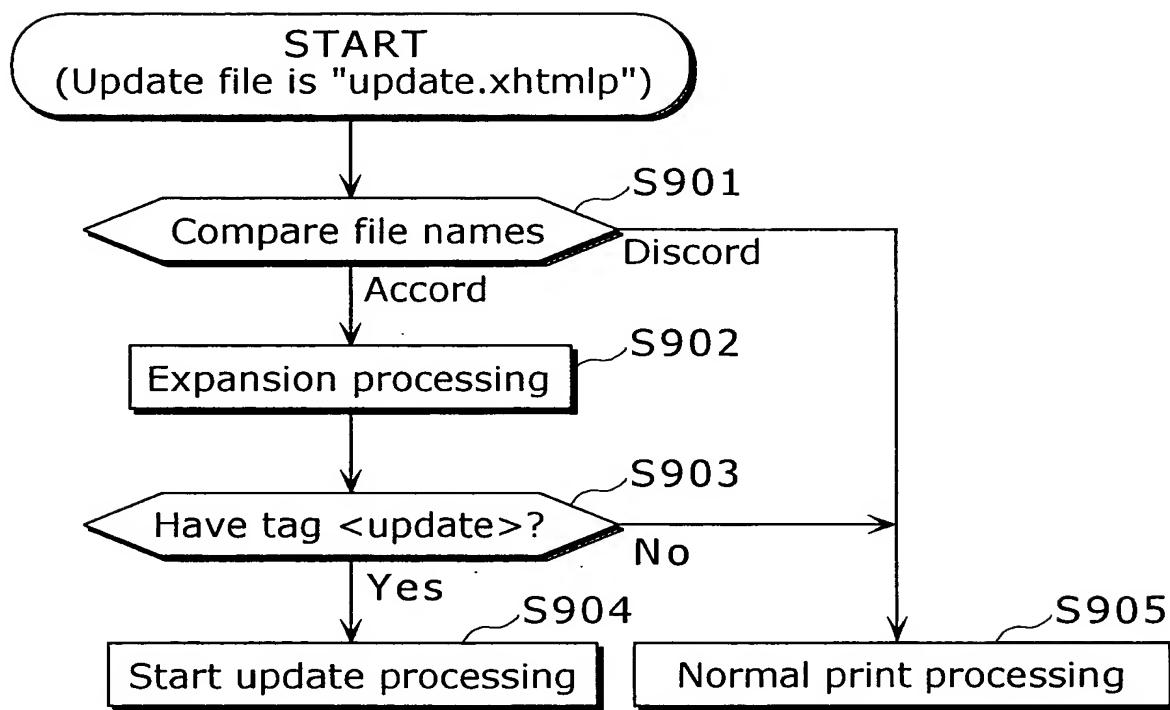


Fig. 7A

Fig. 8

```
<?xml version="1.0"?>
<!DOCTYPE html PUBLIC "-//PWG//DTD XHTML-Print 1.0//EN"
"http://www.pwg.org/xhtml-print/xhtml-print10.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title> Update </title>
</style>
</head>
<body>
<update printer_vendor="MEI" soft_version="5.0.1"
machine_type="cefiro2002" option_unit="" src="update.data"/> L802
<p>version of firmware is updated.
present version is "5.0.1"</p> L803
</update>
</body>
</html>
```

Fig. 9



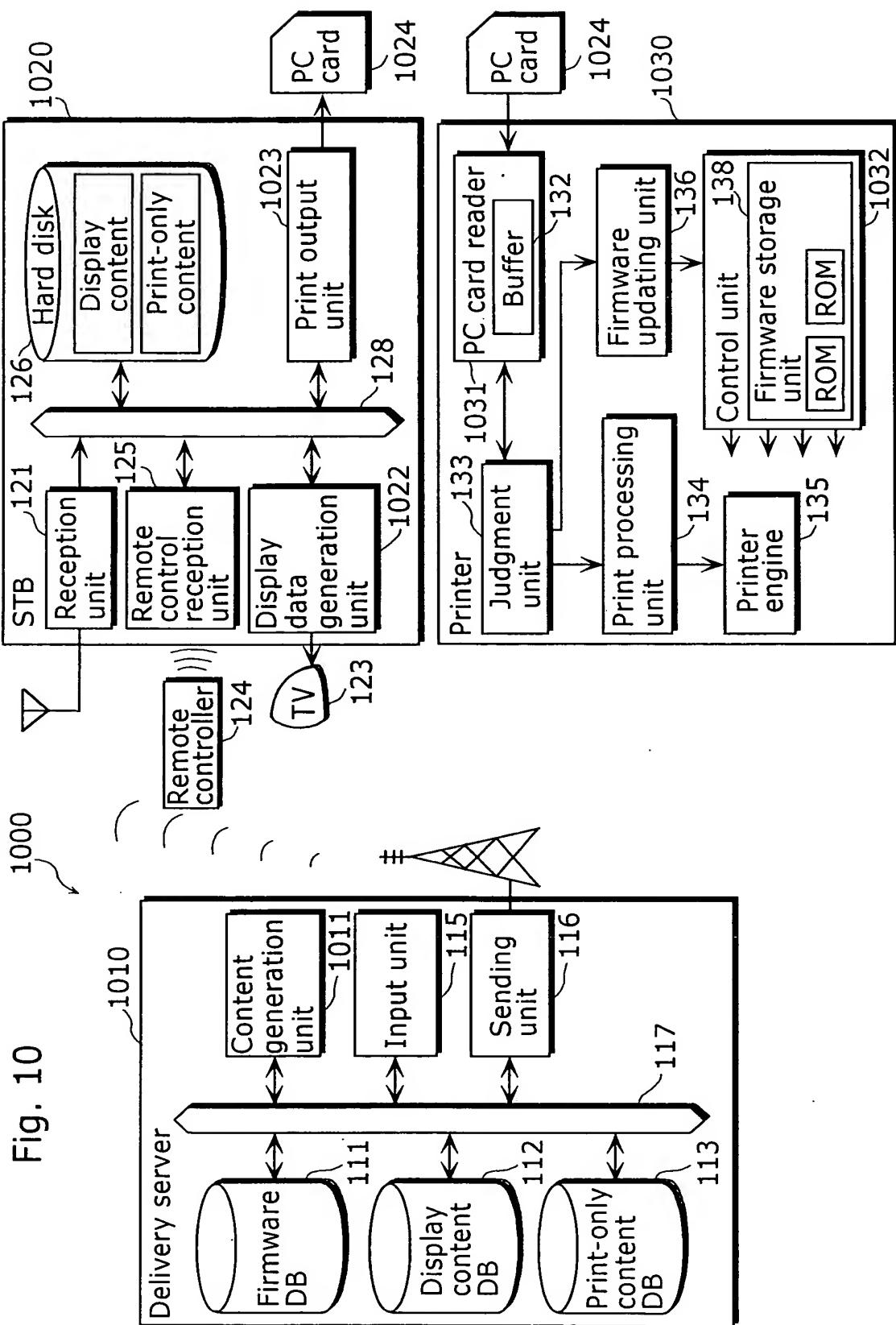


Fig. 11A ② Screen display of display content

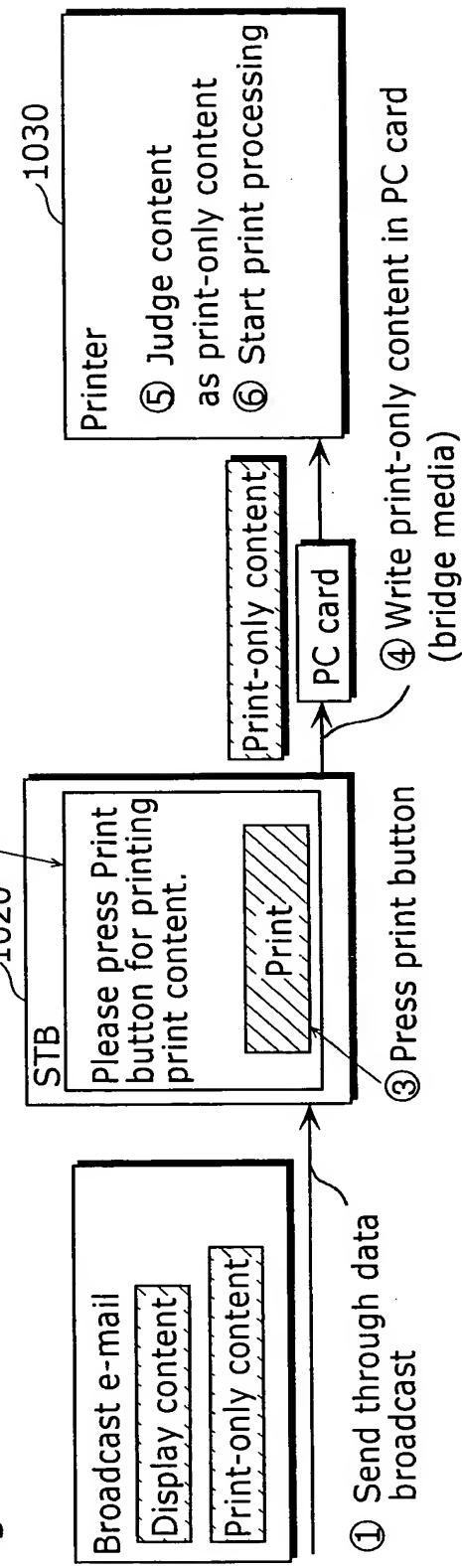


Fig. 11B ② Screen display of display content

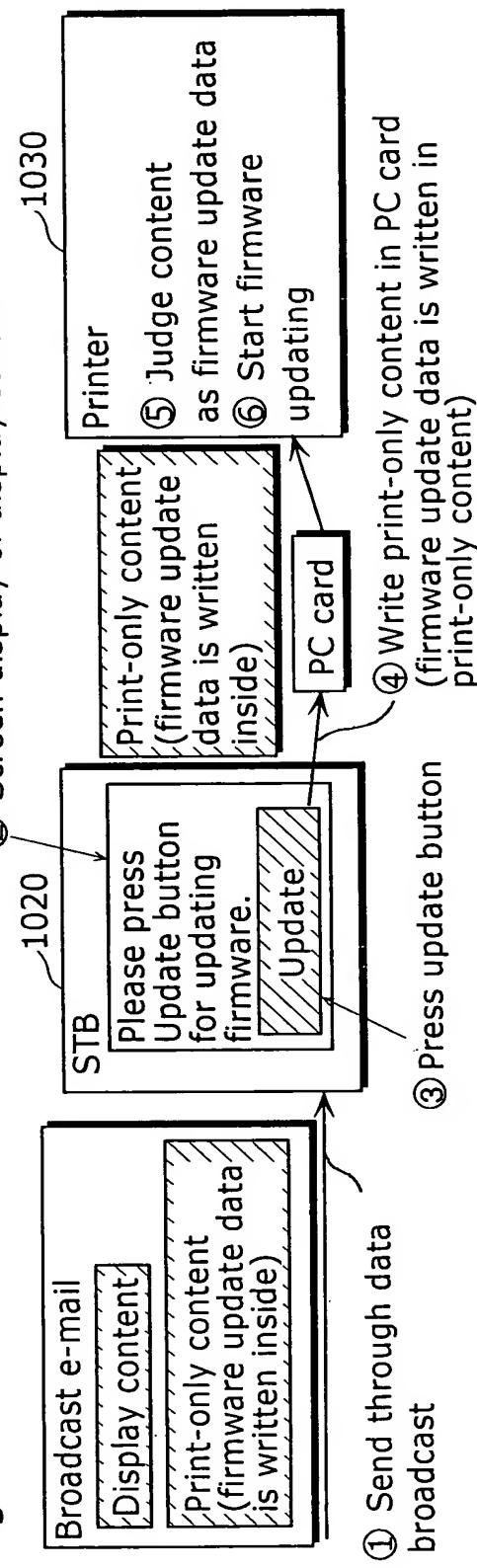


Fig. 12B

```

<?xml version="1.0" encoding="Shift_JIS" ?>
<!DOCTYPE bml PUBLIC "-//ARIB STD-B24:1999//DTD BML
Document//JA" "bml_1_0.dtd">
<?bml bml-version="1.0" ?>
<bml>
<head>
<title>shopping</title>
<script>
<![CDATA[
function keydown() {
    browser.save("./top_print.xhtmlp", "SD");
    browser.save("./image.jpg", "SD");
}
]]>
</script>
</head>
<body>
<object id="video" type="video/X-arib-mpeg2" data="/50"
style="left:528px; top:40px; width:360px; height:202px" />
<object type="image/X-arib-png" id="A" data="a_btn.png"
style="left:68px; top:456px; width:176px; height:48px;" />
<object type="image/X-arib-png" id="B" data="b_btn.png"
style="left:68px; top:456px; width:176px; height:48px;" />
<object type="image/X-arib-png" id="print" data="print_btn.png"
style="left:68px; top:456px; width:176px; height:48px;" 
onkeydown="keydown();"/>
</body>
</bml>

```

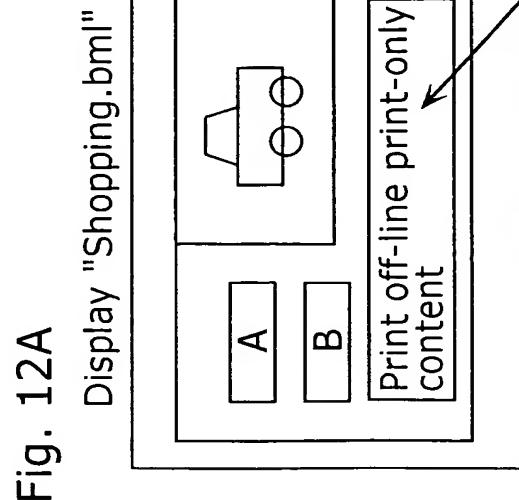


Fig. 12A

Display "Shopping.bml"

Fig. 13B

Display "update.bml"

```
<?xml version="1.0" encoding="Shift_JIS"?>
<!DOCTYPE bml PUBLIC "-//ARIB STD-B24:1999//DTD BML
Document//JA" "bml_1_0.dtd">
<bml|bml-version="1.0"?>
```

```
<head>
  <title>update</title>
  <script>
    <![CDATA[
      function keydown() {
        browser.save("./top_update.xhtml|p", "SD");
        browser.save("./update.data", "SD");
      }
    ]]>
  </script>
</head>
<body>
  <p>
    L1302
    Firmware of printer needs to be updated.
    Please press Firmware update button and update firmware.
  </p>
  <object type="image/X-ARIB-PNG" id="print" data="update_btn.png"
    style="left:68px; top:456px; width:176px; height:48px;">
    onkeydown="keydown();"/>
  </body>
</html>
```

Fig. 14

```
<?xml version="1.0"?>
  <!DOCTYPE html PUBLIC "-//PWG//DTD XHTML-Print 1.0//EN"
  "http://www.pwg.org/xhtml-print/xhtml-print10.dtd">
  <html xmlns="http://www.w3.org/1999/xhtml">
    <head>
      <title> Test Pages </title>
    </style>
    </head>
    <body>
      <update printer_vendor="MEI" version="5.0.1">
        src="http://www.virtual.co.jp /firm.data"/>
      </update>
    </body>
  </html>
```

L1401

Fig. 15

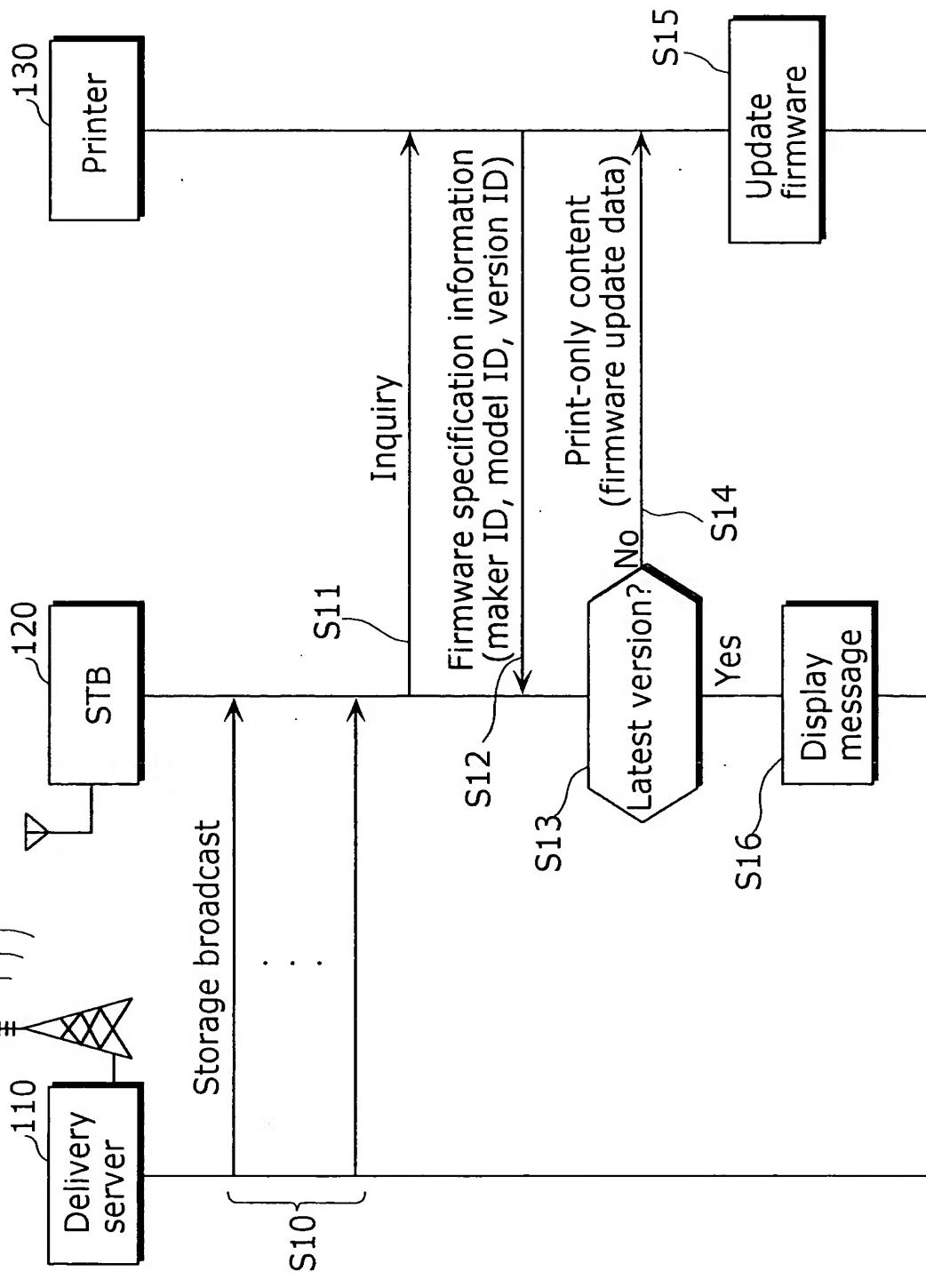


Fig. 16

```

<?xml version="1.0" encoding="Shift_JIS" ?>
<!DOCTYPE bml PUBLIC "+//ARIB STD-B24:1999//DTD BML
 Document//JA" "bml_1_0.dtd">
<?bml bml-version="1.0" ?>
<bml>
  <head>
    <title>update</title>
    <script>
<![CDATA[
    function keydown() {
        //in the case of only two makers
        if{browser.getPrinterMaker ID()==10} //in the case where maker ID is 10
        {
            if{browser.getPrinterTypeID()==1} //in the case where model ID is 1
            {
                if{browser.getPrinterSoftwareVersion()<2} //in the case where version ID is no
more than 2
                {
                    browser. print "./top_update_maker10_type1_v2.xhtmllp ");//print
(actualy update version)
                }
                else//in the case where model ID is 2
                {
                    //make visible button "This is latest version. No need to
update firmware".
                    //processing details omitted
                }
            }
            else 1*(browser. getPrinterTypeID()==2) //in the case where model ID is 2
            {
                //only ".top_update_maker10_type1_v2.xhtmllp" changes as
in the case where model ID is 1
            }
            else //in the case where model ID is neither 1 nor 2
            {
                // make visible button "No version-upgrade data corresponding to
model is found".
                //processing details omitted
            }
        }
        else if (browser getPrinterMakerID()==20) //in the case where maker ID is 20
        {
            //omitted as in the case where maker ID is 10
        }
        else//in the case where maker ID is neither 10 nor 20
        {
            // make visible button "No version-upgrade data corresponding to
maker is found".
        }
    }
]]>
  </script>
  </head>
  <body>
    <p>
      For updating on-line firmware of printer, please press
      "Firmware update" button.
    </p>
    <object type="image/X-arib-png" id="print" data="print_btn.png"
style="left:68px; top:456px; width:176px; height:48px;"
onkeydown="keydown();"/>
  </body>
</bml>

```

Fig. 17

Examples of API:

```
int browser.getPrinterMakerID();
  Return value: -1 (error)
  No fewer than 0 is maker ID

int browser.getPrinterTypeID();
  Return value: -1 (error)
  No fewer than 0 is model ID (maker uniquely assigns)

int browser.getPrinterSoftwareVersion();
  Return value: -1 (error)
  No fewer than 0 is version ID (maker uniquely assigns)
```

Fig. 18

Examples of API:

```
int browser. getCapablePrinterNumber():
    Return value: -1: error
    0: success
    N: number of printers connected
```

---

```
int browser. getCapablePrinterList(int List[]):
    Argument: printer list: (variable length sequence:
                  update value)
    Return value: -1: error
    0: success
```

---

```
int browser. getPrinterMakerID(int printerID):
    Argument: printer ID (printer ID obtained from "browser.
                  getCapablePrinterList")
    Return value: -1: (error)
                  No fewer than 0 is maker ID
```

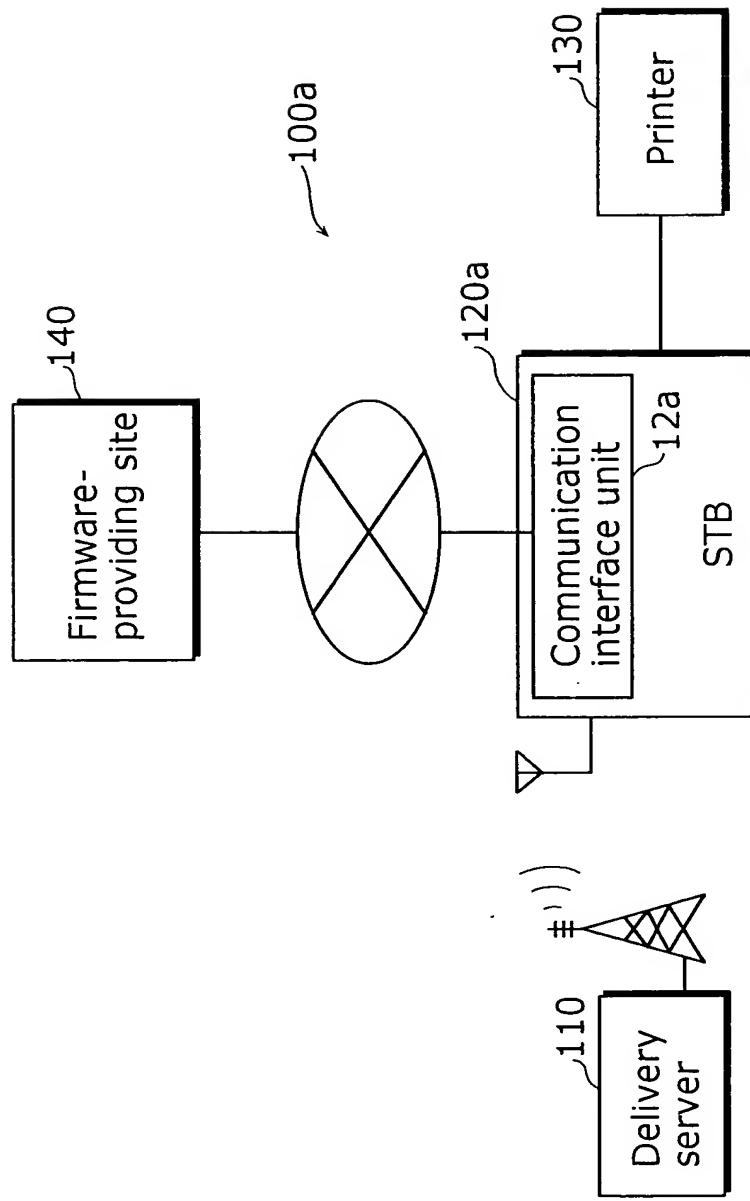
---

```
int browser. getPrinterTypeID():
    Argument: printer ID (printer ID obtained from "browser.
                  getCapablePrinterList")
    Return value: -1: (error)
                  No fewer than 0 is model ID
                  (maker uniquely assigns)
```

---

```
int browser. getPrinterSoftwareVersion():
    Argument: printer ID (printer ID obtained from "browser.
                  getCapablePrinterList")
    Return value: -1: (error)
                  No fewer than 0 is version ID
                  (maker uniquely assigns)
```

Fig. 19



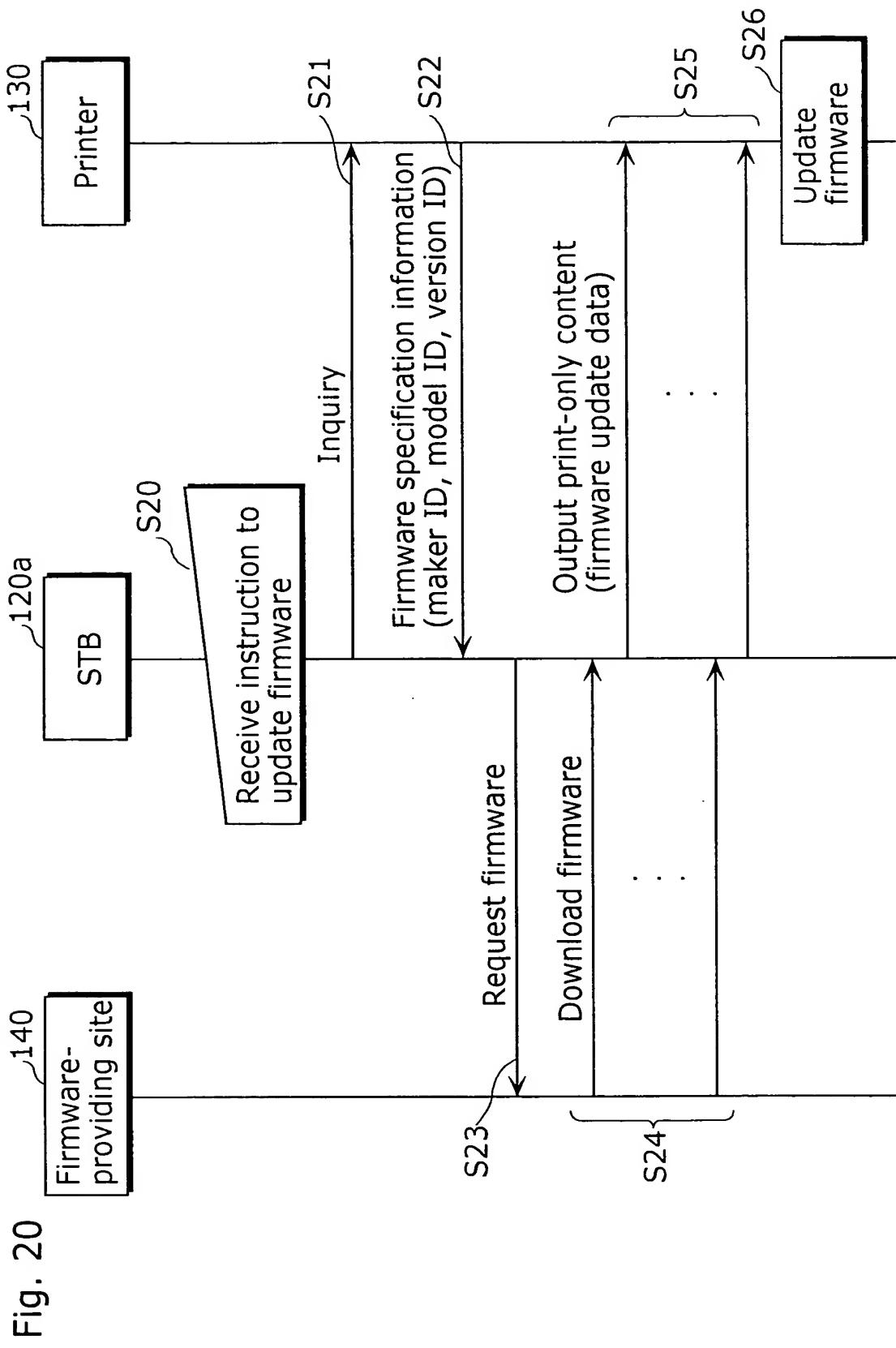


Fig. 21

```
<?xml version="1.0" encoding="Shift_JIS" ?>
<!DOCTYPE bml PUBLIC "+//ARIB STD-B24:1999//DTD BML
 Document//JA" "bml_1_0.dtd">
<?bml bml-version="1.0" ?>
<bml>
  <head>
    <title>update</title>
    <script>
<![CDATA[
  function keydown() {
    //in the case of only two makers
    if{browser.getPrinterMaker ID()==10} //in the case where maker ID is 10
    {
      if{browser.getPrinterTypeID()==1} //in the case where model ID is 1
      {
        if{browser.getPrinterSoftwareVersion()<2} //in the case where version ID is
no more than 2
        {
          browser. print ("http://makerID/type1/v2/top_update_maker10_type1_v2.
xhtmlp "):
            //download from Internet and print (actually
update version) }
        }
        //omission
      }
      //omission
    }
    //omission
  }
]]>
  </script>
</head>
<body>
  //omission
</body>
</bml>
```

Fig. 22

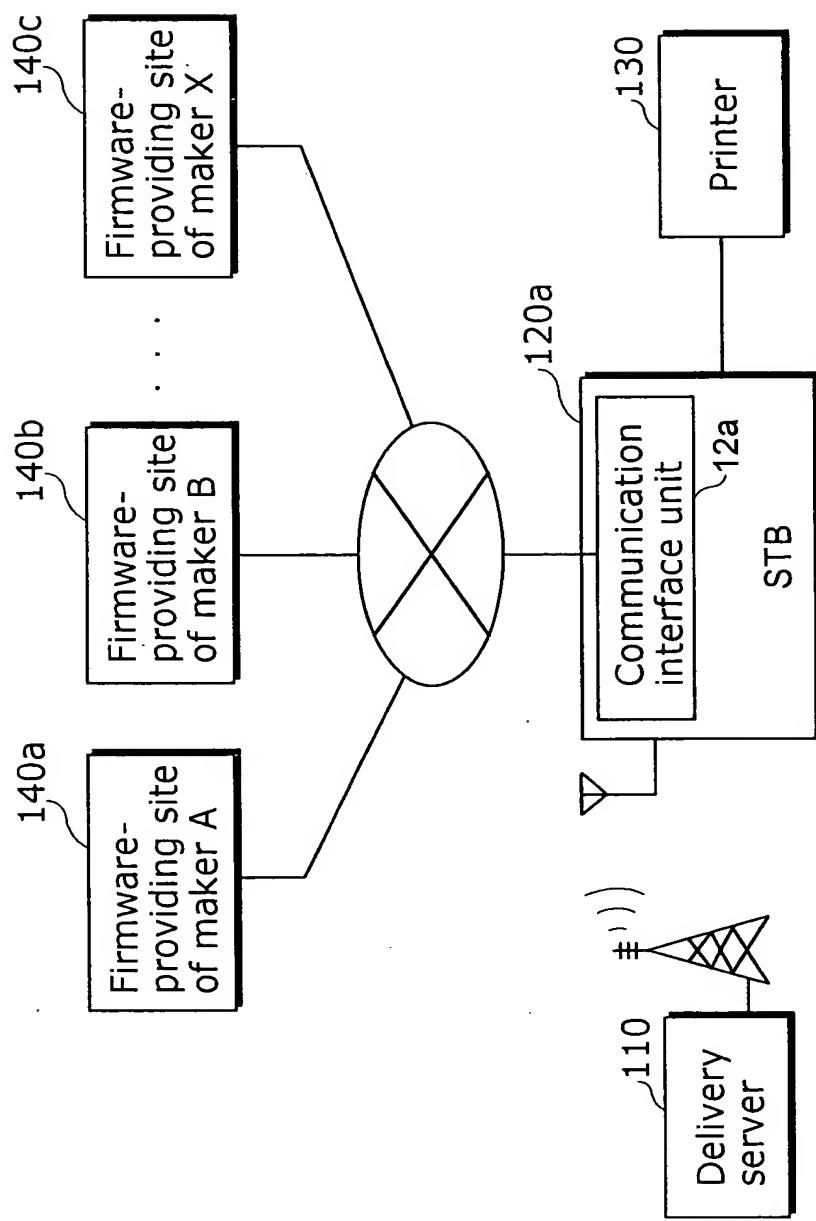


Fig. 23

```
<?xml version="1.0" encoding="Shift_JIS" ?>
<!DOCTYPE bml PUBLIC "+//ARIB STD-B24:1999//DTD BML
 Document//JA" "bml_1_0.dtd">
<?bml bml-version="1.0" ?>
<bml>
  <head>
    <title>update</title>
    <script>
<![CDATA[
    function keydown() {
        //in the case of only two makers
        if{browser.getPrinterMaker ID()==10} //in the case where maker ID is 10
        {
            if{browser.getPrinterTypeID()==1} //in the case where model ID is 1
            {
                if{browser.getPrinterSoftwareVersion()<2} //in the case where version ID is
no more than 2
                {
                    browser. print ("http://maker10/type1/v2/top_update_maker10_type1_v2.
xhtmlp ");
                    /top_update_maker10_type1_v2. xhtmlp ")
                    browser_print("top_update_maker10_type1_v2. xhtmlp "):
                    //download from Internet and print (actually update
version) }
                }
                //omission
            }
            //omission
        }
        //omission
    }
]]>
  </script>
</head>
<body>
    //omission
</body>
</bml>
```

Fig. 24

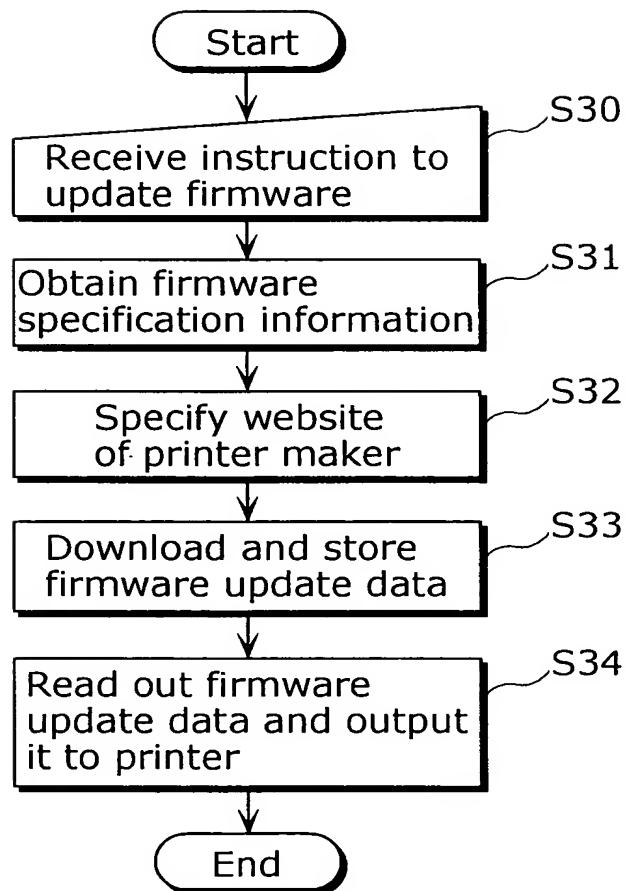


Fig. 25

```
<?xml version="1.0"?>
<!DOCTYPE html PUBLIC "-//PWG//DTD XHTML-Print 1.0//EN"
"http://www.pwg.org/xhtml-print/xhtml-print10.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title> Update </title>
</style>
</head>
<body>
  <update printer_vendor="MEI" soft_version="5.0.1"
  machine_type="cefiro2002" option_unit="" > L801
  src="update.dll"/> L802
  <p>version of firmware is updated.
  present version is 5.0.1.</p> } L803
</update>
</body>
</html>
```

Fig. 26

